ORAL ARGUMENT NOT YET SCHEDULED

No. 23-1174 (L), 23-1221

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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CITY OF PORT ISABEL, *et al.*,

Petitioners,

v.

FEDERAL ENERGY REGULATORY COMMISSION,

Respondent.

On Petition for Review of Orders of the
Federal Energy Regulatory Commission

PETITIONERS' ADDENDUM TO JOINT RULE 30(c) PROOF OPENING BRIEF

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Dated March 4, 2023

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🚩 KeyCite Yellow Flag - Negative Treatment

Unconstitutional or Preempted Prior Version's Limitation Recognized by Miccosukee Tribe of Indians of Florida v. U.S. Army Corps of Engineers, 11th Cir.(Fla.), Sep. 15, 2010

🚩 KeyCite Yellow Flag - Negative Treatment

Proposed Legislation

United States Code Annotated
   Title 42. The Public Health and Welfare
      Chapter 55. National Environmental Policy (Refs & Annos)
         Subchapter I. Policies and Goals (Refs & Annos)

42 U.S.C.A. § 4332

§ 4332. Cooperation of agencies; reports; availability of information;
recommendations; international and national coordination of efforts

Effective: June 3, 2023
Currentness

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all agencies of the Federal Government shall--

(A) utilize a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this chapter, which will ensure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) consistent with the provisions of this chapter and except where compliance would be inconsistent with other statutory requirements, include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on--

(i) reasonably foreseeable environmental effects of the proposed agency action;

(ii) any reasonably foreseeable adverse environmental effects which cannot be avoided should the proposal be implemented;

(iii) a reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal;

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(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and

(v) any irreversible and irretrievable commitments of Federal resources which would be involved in the proposed agency action should it be implemented.

Prior to making any detailed statement, the head of the lead agency shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of Title 5, and shall accompany the proposal through the existing agency review processes;

(D) ensure the professional integrity, including scientific integrity, of the discussion and analysis in an environmental document;

(E) make use of reliable data and resources in carrying out this chapter;

(F) consistent with the provisions of this chapter, study, develop, and describe technically and economically feasible alternatives;

(G) any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this chapter; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction. [1]

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(H) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(I) consistent with the provisions of this chapter, recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(J) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(K) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(L) assist the Council on Environmental Quality established by subchapter II of this chapter.

CREDIT(S)

(Pub.L. 91-190, Title I, § 102, Jan. 1, 1970, 83 Stat. 853; Pub.L. 94-83, Aug. 9, 1975, 89 Stat. 424; Pub.L. 118-5, Div. C, Title III, § 321(a), June 3, 2023, 137 Stat. 38.)

EXECUTIVE ORDERS

EXECUTIVE ORDER NO. 13352

<Aug. 26, 2004, 69 F.R. 52989>

Facilitation of Cooperative Conservation

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Purpose. The purpose of this order is to ensure that the Departments of the Interior, Agriculture, Commerce, and Defense and the Environmental Protection Agency implement laws relating to the environment and natural resources in a manner that promotes cooperative conservation, with an emphasis on appropriate inclusion of local participation in Federal decisionmaking, in accordance with their respective agency missions, policies, and regulations.

Sec. 2. Definition. As used in this order, the term "cooperative conservation" means actions that relate to use, enhancement, and enjoyment of natural resources, protection of the environment, or both, and that involve collaborative activity among Federal, State, local, and tribal governments, private for-profit and nonprofit institutions, other nongovernmental entities and individuals.

Sec. 3. Federal Activities. To carry out the purpose of this order, the Secretaries of the Interior, Agriculture, Commerce, and Defense and the Administrator of the Environmental Protection Agency shall, to the extent permitted by law and subject to the availability of appropriations and in coordination with each other as appropriate:

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(a) carry out the programs, projects, and activities of the agency that they respectively head that implement laws relating to the environment and natural resources in a manner that:

(i) facilitates cooperative conservation;

(ii) takes appropriate account of and respects the interests of persons with ownership or other legally recognized interests in land and other natural resources;

(iii) properly accommodates local participation in Federal decisionmaking; and

(iv) provides that the programs, projects, and activities are consistent with protecting public health and safety;

(b) report annually to the Chairman of the Council on Environmental Quality on actions taken to implement this order; and

(c) provide funding to the Office of Environmental Quality Management Fund (42 U.S.C. 4375) for the Conference for which section 4 of this order provides.

Sec. 4. White House Conference on Cooperative Conservation. The Chairman of the Council on Environmental Quality shall, to the extent permitted by law and subject to the availability of appropriations:

(a) convene not later than 1 year after the date of this order, and thereafter at such times as the Chairman deems appropriate, a White House Conference on Cooperative Conservation (Conference) to facilitate the exchange of information and advice relating to (i) cooperative conservation and (ii) means for achievement of the purpose of this order; and

(b) ensure that the Conference obtains information in a manner that seeks from Conference participants their individual advice and does not involve collective judgment or consensus advice or deliberation.

Sec. 5. General Provision. This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, instrumentalities or entities, its officers, employees or agents, or any other person.

GEORGE W. BUSH

Notes of Decisions (5349)

Footnotes

1   So in original. The period probably should be a semicolon.

42 U.S.C.A. § 4332, 42 USCA § 4332
Current through P.L. 118-39. Some statute sections may be more current, see credits for details.

End of Document

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> Code of Federal Regulations
>　Title 40. Protection of Environment
>　　Chapter V. Council on Environmental Quality
>　　　Subchapter A. National Environmental Policy Act Implementing Regulations (Refs & Annos)
>　　　　Part 1502. Environmental Impact Statement (Refs & Annos)

40 C.F.R. § 1502.16

§ 1502.16 Environmental consequences.

Effective: September 14, 2020
Currentness

(a) The environmental consequences section forms the scientific and analytic basis for the comparisons under § 1502.14. It shall consolidate the discussions of those elements required by sections 102(2)(C)(i), (ii), (iv), and (v) of NEPA that are within the scope of the statement and as much of section 102(2)(C)(iii) of NEPA as is necessary to support the comparisons. This section should not duplicate discussions in § 1502.14. The discussion shall include:

(1) The environmental impacts of the proposed action and reasonable alternatives to the proposed action and the significance of those impacts. The comparison of the proposed action and reasonable alternatives shall be based on this discussion of the impacts.

(2) Any adverse environmental effects that cannot be avoided should the proposal be implemented.

(3) The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

(4) Any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented.

(5) Possible conflicts between the proposed action and the objectives of Federal, regional, State, Tribal, and local land use plans, policies and controls for the area concerned. (§ 1506.2(d) of this chapter)

(6) Energy requirements and conservation potential of various alternatives and mitigation measures.

(7) Natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures.

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(8) Urban quality, historic and cultural resources, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.

(9) Means to mitigate adverse environmental impacts (if not fully covered under § 1502.14(e)).

(10) Where applicable, economic and technical considerations, including the economic benefits of the proposed action.

(b) Economic or social effects by themselves do not require preparation of an environmental impact statement. However, when the agency determines that economic or social and natural or physical environmental effects are interrelated, the environmental impact statement shall discuss and give appropriate consideration to these effects on the human environment.

SOURCE: 85 FR 43357, July 16, 2020; 85 FR 43363, July 16, 2020; 87 FR 23469, April 20, 2022, unless otherwise noted.

AUTHORITY: 42 U.S.C. 4321–4347; 42 U.S.C. 4371–4375; 42 U.S.C. 7609; and E.O. 11514, 35 FR 4247, 3 CFR, 1966–1970, Comp., p. 902, as amended by E.O. 11991, 42 FR 26967, 3 CFR, 1977 Comp., p. 123.

Notes of Decisions (1274)

Current through Feb. 29, 2024, 89 FR 15010. Some sections may be more current. See credits for details.

End of Document

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> Code of Federal Regulations
>   Title 40. Protection of Environment
>   Chapter I. Environmental Protection Agency (Refs & Annos)
>   Subchapter C. Air Programs
>   Part 50. National Primary and Secondary Ambient Air Quality Standards (Refs & Annos)

40 C.F.R. Pt. 50, App. N

Appendix N to Part 50—Interpretation of the National Ambient Air Quality Standards for $PM_{2.5}$

Effective: May 22, 2017

Currentness

1.0 General

(a) This appendix explains the data handling conventions and computations necessary for determining when the national ambient air quality standards (NAAQS) for $PM_{2.5}$ are met, specifically the primary and secondary annual and 24–hour $PM_{2.5}$ NAAQS specified in § 50.7, 50.13, and 50.18. $PM_{2.5}$ is defined, in general terms, as particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers. $PM_{2.5}$ mass concentrations are measured in the ambient air by a Federal Reference Method (FRM) based on appendix L of this part, as applicable, and designated in accordance with part 53 of this chapter; or by a Federal Equivalent Method (FEM) designated in accordance with part 53 of this chapter; or by an Approved Regional Method (ARM) designated in accordance with part 58 of this chapter. Only those FRM, FEM, and ARM measurements that are derived in accordance with part 58 of this chapter (i.e., that are deemed "suitable") shall be used in comparisons with the $PM_{2.5}$ NAAQS. The data handling and computation procedures to be used to construct annual and 24–hour NAAQS metrics from reported $PM_{2.5}$ mass concentrations, and the associated instructions for comparing these calculated metrics to the levels of the $PM_{2.5}$ NAAQS, are specified in sections 2.0, 3.0, and 4.0 of this appendix.

(b) Decisions to exclude, retain, or make adjustments to the data affected by exceptional events, including natural events, are made according to the requirements and process deadlines specified in §§ 50.1, 50.14 and 51.930 of this chapter.

(c) The terms used in this appendix are defined as follows:

Annual mean refers to a weighted arithmetic mean, based on quarterly means, as defined in section 4.4 of this appendix.

The Air Quality System (AQS) is EPA's official repository of ambient air data.

Collocated monitors refers to two or more air measurement instruments for the same parameter (e.g., $PM_{2.5}$ mass) operated at the same site location, and whose placement is consistent with § 53.1 of this chapter. For purposes of considering a combined site record in this appendix, when two or more monitors are operated at the same site, one monitor is designated as the "primary" monitor with any additional monitors designated as "collocated." It is implicit in these appendix procedures that the primary monitor and collocated monitor(s) are all deemed suitable for the applicable NAAQS comparison; however, it is not a requirement that the primary and monitors utilize the same specific sampling and analysis method.

Combined site data record is the data set used for performing calculations in appendix N. It represents data for the primary monitors augmented with data from collocated monitors according to the procedure specified in section 3.0(d) of this appendix.

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Creditable samples are daily values in the combined site record that are given credit for data completeness. The number of creditable samples (cn) for a given year also governs which value in the sorted series of daily values represents the 98th percentile for that year. Creditable samples include daily values collected on scheduled sampling days and valid make-up samples taken for missed or invalidated samples on scheduled sampling days.

Daily values refer to the 24–hour average concentrations of $PM_{2.5}$ mass measured (or averaged from hourly measurements in AQS) from midnight to midnight (local standard time) from suitable monitors.

Data substitution tests are diagnostic evaluations performed on an annual $PM_{2.5}$ NAAQS design value (DV) or a 24–hour $PM_{2.5}$ NAAQS DV to determine if those metrics, which are judged to be based on incomplete data in accordance with 4.1(b) or 4.2(b) of this appendix shall nevertheless be deemed valid for NAAQS comparisons, or alternatively, shall still be considered incomplete and not valid for NAAQS comparisons. There are two data substitution tests, the "minimum quarterly value" test and the "maximum quarterly value" test. Design values (DVs) are the 3–year average NAAQS metrics that are compared to the NAAQS levels to determine when a monitoring site meets or does not meet the NAAQS, calculated as shown in section 4. There are two separate DVs specified in this appendix:

(1) The 3–year average of $PM_{2.5}$ annual mean mass concentrations for each eligible monitoring site is referred to as the "annual $PM_{2.5}$ NAAQS DV".

(2) The 3–year average of annual 98th percentile 24–hour average $PM_{2.5}$ mass concentration values recorded at each eligible monitoring site is referred to as the "24–hour (or daily) PM2.5 NAAQS DV".

Eligible sites are monitoring stations that meet the criteria specified in § 58.11 and § 58.30 of this chapter, and thus are approved for comparison to the annual $PM_{2.5}$ NAAQS. For the 24–hour $PM_{2.5}$ NAAQS, all site locations that meet the criteria specified in § 58.11 are approved (i.e., eligible) for NAAQS comparisons.

Extra samples are non-creditable samples. They are daily values that do not occur on scheduled sampling days and that cannot be used as make-up samples for missed or invalidated scheduled samples. Extra samples are used in mean calculations and are included in the series of all daily values subject to selection as a 98th percentile value, but are not used to determine which value in the sorted list represents the 98th percentile.

Make-up samples are samples collected to take the place of missed or invalidated required scheduled samples. Make-up samples can be made by either the primary or the collocated monitor. Make-up samples are either taken before the next required sampling day or exactly one week after the missed (or voided) sampling day.

The maximum quarterly value data substitution test substitutes actual "high" reported daily $PM_{2.5}$ values from the same site (specifically, the highest reported non-excluded quarterly value(s) (year non-specific) contained in the combined site record for the evaluated 3–year period) for missing daily values.

The minimum quarterly value data substitution test substitutes actual "low" reported daily $PM_{2.5}$ values from the same site (specifically, the lowest reported quarterly value(s) (year non-specific) contained in the combined site record for the evaluated 3–year period) for missing daily values.

98th percentile is the smallest daily value out of a year of $PM_{2.5}$ mass monitoring data below which no more than 98 percent of all daily values fall using the ranking and selection method specified in section 4.5(a) of this appendix.

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Primary monitors are suitable monitors designated by a state or local agency in their annual network plan (and in AQS) as the default data source for creating a combined site record for purposes of NAAQS comparisons. If there is only one suitable monitor at a particular site location, then it is presumed to be a primary monitor.

Quarter refers to a calendar quarter (e.g., January through March).

Quarterly data capture rate is the percentage of scheduled samples in a calendar quarter that have corresponding valid reported sample values. Quarterly data capture rates are specifically calculated as the number of creditable samples for the quarter divided by the number of scheduled samples for the quarter, the result then multiplied by 100 and rounded to the nearest integer.

Scheduled $PM_{2.5}$ samples refers to those reported daily values which are consistent with the required sampling frequency (per § 58.12 of this chapter) for the primary monitor, or those that meet the special exception noted in section 3.0(e) of this appendix.

Seasonal sampling is the practice of collecting data at a reduced frequency during a season of expected low concentrations.

Suitable monitors are instruments that use sampling and analysis methods approved for NAAQS comparisons. For the annual and 24–hour $PM_{2.5}$ NAAQS, suitable monitors include all FRMs, and all FEMs/ARMs except those specific continuous FEMs/ARMs disqualified by a particular monitoring agency network in accordance with § 58.10(b)(13) and approved by the EPA Regional Administrator per § 58.11(e) of this chapter.

Test design values (TDV) are numerical values that used in the data substitution tests described in sections 4.1(c)(i), 4.1(c)(ii) and 4.2(c)(i) of this appendix to determine if the $PM_{2.5}$ NAAQS DV with incomplete data are judged to be valid for NAAQS comparisons. There are two TDVs: TDV_{min} to determine if the NAAQS is not met and is used in the "minimum quarterly value" data substitution test and TDV_{max} to determine if the NAAQS is met and is used in the "maximum quarterly value" data substitution test. These TDV's are derived by substituting historically low or historically high daily concentration values for missing data in an incomplete year(s).

Year refers to a calendar year.

2.0 Monitoring Considerations

(a) Section 58.30 of this chapter provides special considerations for data comparisons to the annual $PM_{2.5}$ NAAQS.

(b) Monitors meeting the network technical requirements detailed in § 58.11 of this chapter are suitable for comparison with the NAAQS for $PM_{2.5}$.

(c) Section 58.12 of this chapter specifies the required minimum frequency of sampling for $PM_{2.5}$. Exceptions to the specified sampling frequencies, such as seasonal sampling, are subject to the approval of the EPA Regional Administrator and must be documented in the state or local agency Annual Monitoring Network Plan as required in § 58.10 of this chapter and also in AQS.

3.0 Requirements for Data Use and Data Reporting for Comparisons With the NAAQS for $PM_{2.5}$

(a) Except as otherwise provided in this appendix, all valid FRM/FEM/ARM $PM_{2.5}$ mass concentration data produced by suitable monitors that are required to be submitted to AQS, or otherwise available to EPA, meeting the requirements of part 58 of this chapter including appendices A, C, and E shall be used in the DV calculations. Generally, EPA will only use such data if they have been certified by the reporting organization (as prescribed by § 58.15 of this chapter); however, data not certified by the reporting organization can nevertheless be used, if the deadline for certification has passed and EPA judges the data to be complete and accurate.

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(b) $PM_{2.5}$ mass concentration data (typically collected hourly for continuous instruments and daily for filter-based instruments) shall be reported to AQS in micrograms per cubic meter ($\mu g/m^3$) to at least one decimal place. If concentrations are reported to one decimal place, additional digits to the right of the tenths decimal place shall be truncated. If concentrations are reported to AQS with more than one decimal place, AQS will truncate the value to one decimal place for NAAQS usage (i.e., for implementing the procedures in this appendix). In situations where suitable $PM_{2.5}$ data are available to EPA but not reported to AQS, the same truncation protocol shall be applied to that data. In situations where $PM_{2.5}$ mass data are submitted to AQS, or are otherwise available, with less precision than specified above, these data shall nevertheless still be deemed appropriate for NAAQS usage.

(c) Twenty-four-hour average concentrations will be computed in AQS from submitted hourly $PM_{2.5}$ concentration data for each corresponding day of the year and the result will be stored in the first, or start, hour (i.e., midnight, hour '0') of the 24–hour period. A 24–hour average concentration shall be considered valid if at least 75 percent of the hourly averages (i.e., 18 hourly values) for the 24–hour period are available. In the event that less than all 24 hourly average concentrations are available (i.e., less than 24, but at least 18), the 24–hour average concentration shall be computed on the basis of the hours available using the number of available hours within the 24–hour period as the divisor (e.g., 19, if 19 hourly values are available). Twenty-four-hour periods with seven or more missing hours shall also be considered valid if, after substituting zero for all missing hourly concentrations, the resulting 24–hour average daily value is greater than the level of the 24–hour $PM_{2.5}$ NAAQS (i.e., greater than or equal to 35.5 $\mu g/m^3$). Twenty-four hour average $PM_{2.5}$ mass concentrations that are averaged in AQS from hourly values will be truncated to one decimal place, consistent with the data handling procedure for the reported hourly (and also 24–hour filter-based) data.

(d) All calculations shown in this appendix shall be implemented on a site-level basis. Site level concentration data shall be processed as follows:

(1) The default dataset for $PM_{2.5}$ mass concentrations for a site shall consist of the measured concentrations recorded from the designated primary monitor(s). All daily values produced by the primary monitor are considered part of the site record; this includes all creditable samples and all extra samples.

(2) Data for the primary monitors shall be augmented as much as possible with data from collocated monitors. If a valid daily value is not produced by the primary monitor for a particular day (scheduled or otherwise), but a value is available from a collocated monitor, then that collocated value shall be considered part of the combined site data record. If more than one collocated daily value is available, the average of those valid collocated values shall be used as the daily value. The data record resulting from this procedure is referred to as the "combined site data record."

(e) All daily values in a combined site data record are used in the calculations specified in this appendix; however, not all daily values are given credit towards data completeness requirements. Only creditable samples are given credit for data completeness. Creditable samples include daily values in the combined site record that are collected on scheduled sampling days and valid make-up samples taken for missed or invalidated samples on scheduled sampling days. Days are considered scheduled according to the required sampling frequency of the designated primary monitor with one exception. The exception is, if a collocated continuous FEM/ARM monitor has a more intensive sampling frequency than the primary FRM monitor, then samples contributed to the combined site record from that continuous FEM/ARM monitor are always considered scheduled and, hence, also creditable. Daily values in the combined site data record that are reported for nonscheduled days, but that are not valid make-up samples are referred to as extra samples.

4.0 Comparisons With the Annual and 24–Hour $PM_{2.5}$ NAAQS

4.1 Annual PM2.5 NAAQS

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(a) The primary annual PM2.5 NAAQS is met when the annual $PM_{2.5}$ NAAQS DV is less than or equal to 12.0 μg/m^3 at each eligible monitoring site. The secondary annual $PM_{2.5}$ NAAQS is met when the annual $PM_{2.5}$ NAAQS DV is less than or equal to 15.0 μg/m^3 at each eligible monitoring site.

(b) Three years of valid annual means are required to produce a valid annual $PM_{2.5}$ NAAQS DV. A year meets data completeness requirements when quarterly data capture rates for all four quarters are at least 75 percent. However, years with at least 11 creditable samples in each quarter shall also be considered valid if the resulting annual mean or resulting annual $PM_{2.5}$ NAAQS DV (rounded according to the conventions of section 4.3 of this appendix) is greater than the level of the applicable primary or secondary annual $PM_{2.5}$ NAAQS. Furthermore, where the explicit 75 percent data capture and/or 11 sample minimum requirements are not met, the 3–year annual $PM_{2.5}$ NAAQS DV shall still be considered valid if it passes at least one of the two data substitution tests stipulated below.

(c) In the case of one, two, or three years that do not meet the completeness requirements of section 4.1(b) of this appendix and thus would normally not be useable for the calculation of a valid annual $PM_{2.5}$ NAAQS DV, the annual $PM_{2.5}$ NAAQS DV shall nevertheless be considered valid if one of the test conditions specified in sections 4.1(c)(i) and 4.1(c)(ii) of this appendix is met.

(i) An annual $PM_{2.5}$ NAAQS DV that is above the level of the NAAQS can be validated if it passes the minimum quarterly value data substitution test. This type of data substitution is permitted only if there are at least 30 days across the three quarters of the three years under consideration (e.g., collectively, quarter 1 of year 1, quarter 1 of year 2 and quarter 1 of year 3) from which to select the quarter-specific low value. Data substitution will be performed in all quarter periods that have less than 11 creditable samples.

Procedure: Identify for each deficient quarter (i.e., those with less than 11 creditable samples) the lowest reported daily value for that quarter, looking across those three months of all three years under consideration. If after substituting the lowest reported daily value for a quarter for (11- cn) daily values in the matching deficient quarter(s) (i.e., to bring the creditable number for those quarters up to 11), the procedure yields a recalculated annual $PM_{2.5}$ NAAQS test DV (TDV_{min}) that is greater than the level of the standard, then the annual $PM_{2.5}$ NAAQS DV is deemed to have passed the diagnostic test and is valid, and the annual $PM_{2.5}$ NAAQS is deemed to have been violated in that 3–year period.

(ii) An annual $PM_{2.5}$ NAAQS DV that is equal to or below the level of the NAAQS can be validated if it passes the maximum quarterly value data substitution test. This type of data substitution is permitted only if there is at least 50 percent data capture in each quarter that is deficient of 75 percent data capture in each of the three years under consideration. Data substitution will be performed in all quarter periods that have less than 75 percent data capture but at least 50 percent data capture. If any quarter has less than 50 percent data capture then this substitution test cannot be used.

Procedure: Identify for each deficient quarter (i.e., those with less than 75 percent but at least 50 percent data capture) the highest reported daily value for that quarter, excluding state-flagged data affected by exceptional events which have been approved for exclusion by the Administrator, looking across those three quarters of all three years under consideration. If after substituting the highest reported daily $PM_{2.5}$ value for a quarter for all missing daily data in the matching deficient quarter(s) (i.e., to make those quarters 100 percent complete), the procedure yields a recalculated annual $PM_{2.5}$ NAAQS test DV (TDV_{max}) that is less than or equal to the level of the standard, then the annual $PM_{2.5}$ NAAQS DV is deemed to have passed the diagnostic test and is valid, and the annual $PM_{2.5}$ NAAQS is deemed to have been met in that 3–year period.

(d) An annual $PM_{2.5}$ NAAQS DV based on data that do not meet the completeness criteria stated in 4(b) and also do not satisfy the test conditions specified in section 4(c), may also be considered valid with the approval of, or at the initiative of, the EPA

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Administrator, who may consider factors such as monitoring site closures/moves, monitoring diligence, the consistency and levels of the daily values that are available, and nearby concentrations in determining whether to use such data.

(e) The equations for calculating the annual PM$_{2.5}$ NAAQS DVs are given in section 4.4 of this appendix.

4.2 Twenty-four-hour PM$_{2.5}$ NAAQS

(a) The primary and secondary 24–hour PM$_{2.5}$ NAAQS are met when the 24–hour PM$_{2.5}$ NAAQS DV at each eligible monitoring site is less than or equal to 35 μg/m^3.

(b) Three years of valid annual PM$_{2.5}$ 98th percentile mass concentrations are required to produce a valid 24–hour PM$_{2.5}$ NAAQS DV. A year meets data completeness requirements when quarterly data capture rates for all four quarters are at least 75 percent. However, years shall be considered valid, notwithstanding quarters with less than complete data (even quarters with less than 11 creditable samples, but at least one creditable sample must be present for the year), if the resulting annual 98th percentile value or resulting 24–hour NAAQS DV (rounded according to the conventions of section 4.3 of this appendix) is greater than the level of the standard. Furthermore, where the explicit 75 percent quarterly data capture requirement is not met, the 24–hour PM$_{2.5}$ NAAQS DV shall still be considered valid if it passes the maximum quarterly value data substitution test.

(c) In the case of one, two, or three years that do not meet the completeness requirements of section 4.2(b) of this appendix and thus would normally not be useable for the calculation of a valid 24–hour PM$_{2.5}$ NAAQS DV, the 24–hour PM$_{2.5}$ NAAQS DV shall nevertheless be considered valid if the test conditions specified in section 4.2(c)(i) of this appendix are met.`

(i) A PM$_{2.5}$ 24–hour mass NAAQS DV that is equal to or below the level of the NAAQS can be validated if it passes the maximum quarterly value data substitution test. This type of data substitution is permitted only if there is at least 50 percent data capture in each quarter that is deficient of 75 percent data capture in each of the three years under consideration. Data substitution will be performed in all quarters that have less than 75 percent data capture but at least 50 percent data capture. If any quarter has less than 50 percent data capture then this substitution test cannot be used.

Procedure: Identify for each deficient quarter (i.e., those with less than 75 percent but at least 50 percent data capture) the highest reported daily PM$_{2.5}$ value for that quarter, excluding state-flagged data affected by exceptional events which have been approved for exclusion by the Regional Administrator, looking across those three quarters of all three years under consideration. If, after substituting the highest reported daily maximum PM$_{2.5}$ value for a quarter for all missing daily data in the matching deficient quarter(s) (i.e., to make those quarters 100 percent complete), the procedure yields a recalculated 3–year 24–hour NAAQS test DV (TDV$_{max}$) less than or equal to the level of the standard, then the 24–hour PM$_{2.5}$ NAAQS DV is deemed to have passed the diagnostic test and is valid, and the 24–hour PM$_{2.5}$ NAAQS is deemed to have been met in that 3–year period.

(d) A 24–hour PM$_{2.5}$ NAAQS DV based on data that do not meet the completeness criteria stated in section 4(b) of this appendix and also do not satisfy the test conditions specified in section 4(c) of this appendix, may also be considered valid with the approval of, or at the initiative of, the EPA Administrator, who may consider factors such as monitoring site closures/moves, monitoring diligence, the consistency and levels of the daily values that are available, and nearby concentrations in determining whether to use such data.

(e) The procedures and equations for calculating the 24–hour PM$_{2.5}$ NAAQS DVs are given in section 4.5 of this appendix.

4.3 Rounding Conventions. For the purposes of comparing calculated PM$_{2.5}$ NAAQS DVs to the applicable level of the standard, it is necessary to round the final results of the calculations described in sections 4.4 and 4.5 of this appendix. Results for all intermediate calculations shall not be rounded.

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(a) Annual $PM_{2.5}$ NAAQS DVs shall be rounded to the nearest tenth of a $\mu g/m^3$ (decimals x.x5 and greater are rounded up to the next tenth, and any decimal lower than x.x5 is rounded down to the nearest tenth).

(b) Twenty-four-hour $PM_{2.5}$ NAAQS DVs shall be rounded to the nearest 1 $\mu g/m^3$ (decimals 0.5 and greater are rounded up to the nearest whole number, and any decimal lower than 0.5 is rounded down to the nearest whole number).

4.4 Equations for the Annual PM2.5 NAAQS.

(a) An annual mean value for $PM_{2.5}$ is determined by first averaging the daily values of a calendar quarter using equation 1 of this appendix:

Equation 1

$$\overline{X}_{q,y} = \frac{1}{n_q} \sum_{i=1}^{n_q} X_{i,q,y}$$

Where:

$X_{q,y}$ = the mean for quarter q of the year y;

n_q = the number of daily values in the quarter; and

x_i q,y = the ith value in quarter q for year y.

(b) Equation 2 of this appendix is then used to calculate the site annual mean:

Equation 2

$$\overline{X}_y = \frac{1}{n_{Q,y}} \sum_{q=1}^{n_{Q,y}} \overline{X}_{q,y}$$

Where:

X_y = the annual mean concentration for year y (y = 1, 2, or 3);

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$n_{Q,y}$ = the number of quarters Q in year y with at least one daily value; and

$X_{q,y}$ = the mean for quarter q of year y (result of equation 1).

(c) The annual PM$_{2.5}$ NAAQS DV is calculated using equation 3 of this appendix:

Equation 3

$$\overline{X} = \frac{1}{3} \sum_{y=1}^{3} \overline{X}_y$$

Where:

$\overline{X}$ = the annual PM$_{2.5}$ NAAQS DV; and

$\overline{X}_y$ = the annual mean for year y (result of equation 2)

(d) The annual PM$_{2.5}$ NAAQS DV is rounded according to the conventions in section 4.3 of this appendix before comparisons with the levels of the primary and secondary annual PM$_{2.5}$ NAAQS are made.

4.5 Procedures and Equations for the 24–Hour PM$_{2.5}$ NAAQS

(a) When the data for a particular site and year meet the data completeness requirements in section 4.2 of this appendix, calculation of the 98th percentile is accomplished by the steps provided in this subsection. Table 1 of this appendix shall be used to identify annual 98th percentile values.

Identification of annual 98th percentile values using the Table 1 procedure will be based on the creditable number of samples (as described below), rather than on the actual number of samples. Credit will not be granted for extra (non-creditable) samples. Extra samples, however, are candidates for selection as the annual 98th percentile. [The creditable number of samples will determine how deep to go into the data distribution, but all samples (creditable and extra) will be considered when making the percentile assignment.] The annual creditable number of samples is the sum of the four quarterly creditable number of samples.

Procedure: Sort all the daily values from a particular site and year by descending value. (For example: (x[1], x[2], x[3], * * *, x[n]). In this case, x[1] is the largest number and x[n] is the smallest value.) The 98th percentile value is determined from this sorted series of daily values which is ordered from the highest to the lowest number. Using the left column of Table 1, determine the appropriate range for the annual creditable number of samples for year y (cn$_y$) (e.g., for 120 creditable samples per year, the appropriate range would be 101 to 150). The corresponding "n" value in the right column identifies the rank of the annual 98th percentile value in the descending sorted list of site specific daily values for year y (e.g., for the range of 101 to 150, n would be 3). Thus, P$_{0.98}$, y = the nth largest value (e.g., for the range of 101 to 150, the 98th percentile value would be the third highest value in the sorted series of daily values.

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Table 1

Annual number of creditable samples for year y (cn$_y$)	The 98th percentile for year y (P$_{0.98,y}$), is the nth maximum 24-hour average value for the year where n is the listed number
1 to 50	1
51 to 100	2
101 to 150	3
151 to 200	4
201 to 250	5
251 to 300	6
301 to 350	7
351 to 366	8

(b) The 24–hour PM$_{2.5}$ NAAQS DV is then calculated by averaging the annual 98th percentiles using equation 4 of this appendix: P$_{0.98,y}$

Equation 4

$$\overline{P}_{0.98} = \frac{1}{3} \sum_{y=1}^{3} P_{0.98,y}$$

Where:

$\overline{P}_{0.98}$ = the 24–hour PM$_{2.5}$ NAAQS DV; and

P$_{0.98}$, y = the annual 98th percentile for year y

(c) The 24–hour PM$_{2.5}$ NAAQS DV is rounded according to the conventions in section 4.3 of this appendix before a comparison with the level of the primary and secondary 24–hour NAAQS are made.

Credits

[62 FR 38755, July 18, 1997; 69 FR 45595, July 30, 2004; 71 FR 61227, Oct. 17, 2006; 73 FR 1502, Jan. 9, 2008; 78 FR 3277, Jan. 15, 2013; 81 FR 53008, Aug. 11, 2016; 81 FR 66823, Sept. 29, 2016; 82 FR 14327, March 20, 2017]

SOURCE: 36 FR 22384, Nov. 25, 1971; 50 FR 25544, June 19, 1985; 63 FR 7274, Feb. 12, 1998 unless otherwise noted., unless otherwise noted.

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AUTHORITY: 42 U.S.C. 7401, et seq.

Current through Feb. 29, 2024, 89 FR 15010. Some sections may be more current. See credits for details.

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CERTIFICATE OF SERVICE

I hereby certify that on this 4th day of March, 2024, I have served the foregoing Addendum to the Joint Reply Brief for Petitioners on all registered counsel through the Court's electronic filing system (ECF).

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